

Abstract of the Disclosure

The present invention provides a p-channel metal-oxide-semiconductor (pMOS) device having an ultra shallow epi-channel satisfying a high doping concentration required for a device of which gate length is about 30 nm even without using a HALO doping layer and a method for fabricating the same. The pMOS device includes: a semiconductor substrate; a channel doping layer being formed in a surface of the semiconductor substrate and being dually doped with dopants having different diffusion rates; a silicon epi-layer being formed on the channel doping layer, whereby constructing an epi-channel along with the channel doping layer; a gate insulating layer formed on the silicon epi-layer; a gate electrode formed on the gate insulating layer; a source/drain extension region highly concentrated and formed in the semiconductor substrate of lateral sides of the epi-channel; and a source/drain region electrically connected to the source/drain extension region and deeper than the